

### **REMARKS**

The Office Action dated June 1, 2004 has been received and carefully studied.

The Examiner rejects claims 1, 5, 7, 8, 11 12 and 14 under 35 U.S.C. §112, first paragraph, as being non-enabling. The term "not" was inadvertently omitted from the last line of claim 1 in Applicant's prior amendment. By the accompanying amendment, the omission has been corrected.

The Examiner rejects claims 1, 5, 7, 8 and 11-15 under 35 U.S.C. §112, second paragraph, as being indefinite for various reasons. By the accompanying amendment, the indefiniteness has been eliminated.

The Examiner rejects claims 1, 5, 7, 13 and 15 under 35 U.S.C. §102(b) as being anticipated by Grimes et al., as evidenced by Daramic II-IV: Polyethylene battery separators for starter batteries.

By the accompanying amendment, the independent claims have been amended to recite that the second opposite side of the separator sheet is devoid of studs. Support for the amendment can be found at page 5, third paragraph of the specification. In addition, claims 1 and 15 have been amended to recite a battery separator having the form of a pocket in order to distinguish the

claimed separator from separator material for forming pocket electrodes.

Paragraph 2 on page 5 of the Office Action seems to indicate that the Examiner is interpreting the claims to encompass separator material for forming pocket electrodes, whereas in the Examiner's discussion of Knauer, the interpretation appears to be that the separator has the form of a pocket. The accompanying amendment removes any doubt and makes it clear that the claims are directed to a battery separator having the form of a pocket. As discussed in detail previously, the sheet separators disclosed by Grimes are not suitable for forming pocket separators. The separators of Grimes are intended for use in zinc-bromine batteries. As can be seen from Figure 1, the zinc-bromine system comprises two electrolytes which are circulated through separate compartments of the cell. An anolyte which is pumped through compartment 8 and loop 13, and a catholyte which is pumped through compartment 9 and loop 16. Consequently, both sides of the separators are provided with projections which allow for an expeditious flow of electrolyte through compartments 8 and 9, respectively (column 5, lines 26-30), and, as can be seen in Figure 7, both sides of the separators show the same design for the projections.

Accordingly, the present separators as claimed differ from Grimes in at least two aspects. Firstly, the present separators have the form of pockets whereas the separators of Grimes are sheet separators. Secondly, the separators of the present invention are provided with studs on only one side of the separators sheet, whereas the separators of Grimes either have no studs at all or are provided with studs on both sides of the separator sheet. Moreover, the skilled artisan would not be motivated to form the Grimes separator into pocket form, nor is motivation present to provide studs on only one side of the Grimes sheet. Indeed, since both sides of the Grimes separator facilitate electrolyte flow, both sides of the separator are provided with the projections.

The Examiner maintains the rejection of claims 1, 5, 7 and 11-15 under 35 U.S.C. §103(a) as being unpatentable over Knauer, U.S. Patent No. 5,558,952 in view of Grimes, U.S. Patent No. 4,396,689, and further in view of Daramic II-V: Polyethylene battery separators for starter batteries.

It is noted that the claims now expressly recite that the second side of the sheet is devoid of studs.

The Examiner addresses Applicants' previous argument that Grimes relates to zinc-bromine battery separators by stating that

since Grimes teaches separators for vehicular battery systems, and since lead-acid batteries are used in vehicles, Grimes at least suggests that his separators may be used for lead-acid storage batteries.

Applicants respectfully but vigorously disagree with this reasoning. Clearly Grimes relates to zinc-bromine batteries, and his generic disclosure about vehicles does not suggest otherwise. One skilled in the battery art simply would not be motivated to modify the Grimes separator for use in lead-acid systems as starter batteries for cars. The requirements for zinc-bromine batteries are completely different.

The Examiner also admonishes Applicant for allegedly attaching the references individually. However, the point of Applicants' argument is that since the Grimes' separator would be incompatible with the Knauer pocket design, the skilled artisan would not be motivated to modify the Knauer device in view of Grimes. This is not an attack on the references individually. Applicant set out in detail that Knauer teaches a pocket separator for lead acid storage batteries that comprise a plurality of continuous vertical ribs, and a plurality of broken vertical ribs in the center which engage the positive or negative plate of the electrode in order to address the shortcomings of

the prior art regarding misalignment of electrode plates, impaired gas flow and slow production. The argument then demonstrates how the skilled artisan would not be motivated to modify the Knauer pocket separator to include two to four elongated (continuous) vertical ribs in the center area of a first side of the sheet along with a plurality of studs on that first side in view of Grimes, since Grimes is not and could not be a pocket separator, and since Grimes concerns a separator used in a completely different type of battery.


The Examiner has provided no basis for any suggestion or motivation in the cited references to modify the Knauer separator such that the present invention as claimed would be arrived at. See *In re Rouffet*, 47 U.S. P.Q.2d 1453, 1457-58 (Fed. Cir. 1998) ("To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed."). No motivation has been provided as to why the skilled artisan would modify the pocket separator of Knauer to have an arrangement of studs and ribs as claimed based upon a reference that discloses a

completely different type of separator used in a completely different type of battery. It is well settled that to establish a *prima facie* case of obviousness, the prior art must teach or suggest all the limitations of a claim, there must exist a suggestion or motivation in the references themselves or as a matter of general knowledge to modify or combine the references, and there must be a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Applicants respectfully submit that a *prima facie* case of obviousness has not been established.

The allowability of claim 8 is noted with appreciation.

Reconsideration and allowance are respectfully requested in view of the foregoing amendment and remarks.

Respectfully submitted,

  
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